

### The Case for the Portsmouth Naval Shipyard

The Portsmouth Naval Shipyard (PNS) is integral to transforming the Department of Defense for reasons of National and Homeland Security and is demonstrating its abilities in significant areas:

- America's Submarine Maintenance Expert
- Nuclear Certified and Strategic Location
- Top Submarine Overhaul Performer
- Demonstrated Ability to Transform
- Leadership in Private/Public Partnership
- Forward Focused on National Defense Priorities

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#### **PNS is America's submarine maintenance expert.**

PNS is the only Naval Shipyard with a full spectrum of nuclear and diesel submarine maintenance experience, including reactor servicing, overhaul, modernization, testing and emergent repair. Its workforce is highly skilled with unique talents that cannot be replicated elsewhere.

In the last half century, PNS has completed 74 major overhauls on nuclear powered fast attack and ballistic missile submarines. This is significantly more overhauls than any other shipyard completed (public or private). Today, PNS is the most experienced in performing nuclear powered fast attack submarine maintenance. In addition to conducting record setting overhauls on-yard, PNS supports worldwide submarine maintenance and modernization work, including emergent repair work at forward deployed sites.

PNS is the lead shipyard for Los Angeles Class submarine maintenance in our Navy's "One Shipyard" transformational initiative, having the responsibility for overhaul planning, performance analysis (metrics), as well as business, management, and industrial work processes. The Los Angeles Class currently represents 94% of our nation's nuclear powered fast attack submarine force (65% of our nation's total submarine force). PNS is exporting its process improvements and lessons learned, and mentors public and private shipyards during the planning and execution of their submarine overhauls.

PNS is the Navy's expert in special mission submersibles. In addition to performing submersible overhauls, it also directs life cycle maintenance and system upgrades on the Navy's deep diving special mission submarines including NAVAL RESEARCH-1 and USS DOLPHIN (AGSS 555). It is also involved in planning, engineering and maintenance work associated with Advance Seal Delivery System vehicles, and installs the latest submarine rescue systems in submarines.

**PNS is nuclear certified, located in a strategic location, and provides a high quality of life for military members and civilian employees.**

PNS is one of only two nuclear certified public shipyards on the east coast of the U.S., making it an irreplaceable asset. PNS possesses a natural deep harbor, a nuclear license, and drydock certifications that, given the realities of coastal development and environmental permitting, would be practically impossible to reconstitute.

PNS is situated on the North Atlantic, further north and east than any other Navy owned ship and submarine repair facility. As such, it is an ideal facility strategically for Navy warfighter platform support and joint-use missions with DHS. Without impacting its vital Navy mission, PNS is providing homeporting services for the U.S. Coast Guard and is collaborating with them to provide additional protection for the Base, Port of Portsmouth, and the surrounding communities. PNS is also the geographic center of the northeast region such that the facility can provide rapid emergency response support to communities across the region.

The benefits of living in central New England are well known by those who live or vacation in the region. Navy and Coast Guard families have been particularly pleased with our climate, our proximity to major metropolitan areas and their sporting and cultural outlets, our beaches and mountains and their associated activities, and our quality schools, low crime rate, and small town way of life. Located in one of the nations deep-water seaports with easy and unobstructed accessibility to open ocean, PNS is centrally positioned between Boston, MA, Manchester, NH, and Portland, ME, and their associated transportation services.

**PNS is the top submarine overhaul performer (public or private).**

PNS holds the current cost and schedule performance records for Los Angeles Class submarine overhauls, including:

- Engineered Refueling Overhaul – USS ALBUQUERQUE (SSN 706) in 2003 – delivered 1-month earlier than any other Shipyard, with a cost savings of \$16M.
- Depot Modernization Period – USS ALEXANDRIA (SSN 757) in 2002 – delivered just under 6 weeks earlier than any other Shipyard and on budget.

The current performance reflects a 15-year trend of nuclear powered submarine overhaul successes (cost and schedule), while maintaining the highest level of quality workmanship. In fact, PNS has completed each of its last three Engineered Refueling Overhauls in less mandays and time than the previous and completed each of its last three Depot Modernization Period overhauls in less mandays and time than the previous. This allowed PNS to return several million dollars to the Fleet in successive years and return submarines to service more quickly during a period when the nation was fighting the War on Terrorism world-wide.



The trend of performance improvement continues on the USS NORFOLK (SSN 714), USS ANNAPOLIS (SSN 760) and USS PROVIDENCE (SSN 719), all of which are currently undergoing major overhauls at PNS.

**PNS has demonstrated its ability to transform over 200 years.**

Transformation is occurring in the area of people, facilities, processes, and joint service support.

The culture of the workforce is reflected in the Shipyard motto "*From Sails to Atoms*" describing a innovative and highly skilled workforce, which has demonstrated its ability to efficiently realign itself to new missions for over two hundred years. As part of the Nation's core shipbuilding capability, the Shipyard maintains a wealth of highly trained artisans in the critical trades necessary to accomplish Naval Nuclear Propulsion work on submarines. In many cases, these people are the descendents of local seacoast families that worked at PNS during construction of 126 diesel and 10 nuclear powered submarines at the Shipyard during the last decade. They are now setting records for performance of major submarine overhauls in this decade. The PNS workforce is transforming beyond traditional roles for engineers, mechanics, and inspectors to a multi-skilled, rapidly deployable, customer oriented workforce.

Given the years it takes to train and qualify nuclear workers, and the roots that these workers and their families have established in the Seacoast community, Portsmouth's specialized workforce constitutes a national asset that would be difficult, if not impossible, to reconstitute.

PNS continues to re-engineer its facilities into highly efficient workspaces, designed for optimum work-flow. Its facilities management program uses the Military Construction process effectively and where under-utilized facilities exist, it seeks new missions and product lines to fully utilize each building. Where this is not feasible, options such as outleasing or demolition are immediately considered to reduce cost to the Navy.

Streamlining operations to eliminate waste is the goal of transforming the business and its technical processes. Sharing and adopting best business and industrial practices between federal facilities and private enterprises and identifying emerging technologies, has generated industrial solutions to cumbersome work practices.

Mission transformation to joint-use is underway. Teamed through the Navy and the Department of Homeland Security, PNS has embraced homeporting three U.S. Coast Guard Cutters at the Shipyard. Joint use presents a wide range of opportunities for DON, DOD and DHS to cost effectively utilize PNS to serve as a homeland protector as well as a warfighter supporter. In its pivotal role in Navy regional maintenance, PNS also serves as a foundation for additional consolidation in the Northeast region. PNS is strengthening existing ties with local and state agencies in support of mutual assistance. Currently, PNS has mutual aid agreements with 38 surrounding communities and provides assistance as necessary to the emergency management agencies in Maine and New Hampshire.

The result of these transformation initiatives is improved execution performance and reduced overhead costs. For five consecutive years, the Shipyard has achieved its financial objectives while returning millions of dollars in savings to the Fleet.

**PNS is expanding its leadership role in the public and private sector.**

Under the Navy's "One Shipyard" transformational initiative, PNS is the lead for all Los Angeles Class nuclear submarine maintenance including work practices, business processes, and management techniques. Under this charter our management and workforce are collectively involved with mentoring all shipyards, public and private, in the planning and execution of their assigned overhauls.

Principally with General Dynamics Electric Boat Corporation and Northrup Grumman Newport News, PNS has provided resources and expertise in planning for and performing submarine ship alteration installations and depot level maintenance at homeport locations. PNS is exporting its expertise through sharing lessons learned, providing consultation services, best business practices, and industrial process improvements. Through its technology transfer office, PNS is partnered with academic institutions (e.g., University of Virginia and Penn State), Defense contractors and small businesses, focusing on the development and rapid insertion of new technologies, to improve maintenance performance and submarine operations.

**PNS is forward focused on National Defense Priorities – especially naval operational and maintenance needs, as the Navy transforms for the 21<sup>st</sup> century.**

Military roles and weapons platforms are evolving with the improvement of technology and the changing of national defense and homeland security needs. Navy's newest class of nuclear submarines (Virginia Class), currently under construction, is an example of a warfighter platform design adapting to future missions. Planning for life cycle maintenance of this class is well under way at PNS and SUBMEPP (collocated nuclear submarine planning activity). PNS management is carrying forward its successful approach to transformation by fostering an environment that embraces the change that comes with advancing technology and new missions. The Shipyard is committed to providing the Nation with the operational and maintenance support it requires, delivering the best value in industrial and engineering support for joint-service applications and world-wide Navy support.